

REMARKS

Applicants acknowledge receipt of the final office action dated June 23, 2005, in which the Examiner indicated that claims 18, 19, 23, and 24 would be allowable and rejected the balance of the claims pending in the application. In this after-final response, Applicants submit and affidavit and arguments and respectfully request withdrawal of the rejections for the following reasons.

Statement regarding the Informal Telephonic Discussion

Applicants thank the Examiner for his time in reviewing the subject matter of the invention and his generous efforts in appreciating the meaning of the claim limitations. Applicants respectfully refer the Examiner to the Figures (and in particular to item 51 on the amended Figures) if such would facilitate the Examiner's appreciation of the width of an opening that is wide enough to accommodate "a drive aisle and an automobile parking space."

Statement regarding the Amendments

Applicants have again amended the claims, not to provide further distinction over the art, but to further clarify the intended claim scope. Applicants believe the claims as amended are allowable for the reasons set out below and therefore respectfully request entry of the amendments.

Rejection under 35 U.S.C. § 103

In continuing the rejection of claims 2, 4, and 14-24 as unpatentable over Stewart et al ('496) in view of Cerutti et al, the Examiner asserts that Stewart discloses a multistory building meeting the limitations of claims 15 and 20 with the exception of using poured-in-place concrete construction techniques. To provide the missing elements, the Examiner cites Cerutti et al., which relates to tunnel-forming. Applicants again respectfully submit that this rejection is not supportable for the reasons set out below.

As set out before, Stewart makes no novel teaching with respect to tunnel-forming. More importantly, Stewart does not teach the use of tunnel-forming in the construction of garages, which is one of the problems that is solved by the present invention. Stewart's only reference to tunnel-forming occurs in the third paragraph of his Detailed Description, where he merely states that multi-storey buildings "can" be formed using tunnel-form technology. However, the statement relates to the apartments that form the superstructure; all of the plan views of Stewart illustrate

column and plate construction for the parking garages, which Stewart is forced to use because he is unaware of and thus unable to take advantage of the concepts of the present invention. This is confirmed in the Affidavit of Darcy Garneau, which was filed with the previous Response.

Second, Stewart does not teach or suggest the presently claimed concepts in any way. The Examiner states, on page 3 of the Office Action, that Stewart discloses "...drive aisle openings in the first tunnel walls being wide enough to accommodate a parking space in addition to the drive aisle." However, because Stewart teaches the use of column and plate construction for his garages, the width of his drive aisle is immaterial, as it is not constrained in any way. It is well known that column and plate construction allows for an essentially open floor plan (as in most parking garages). Nothing in Stewart teaches or suggestion any deviation from the conventional construction of parking decks. Stewart provides for supporting the vertical load of the superstructure *by including a plurality of perimeter columns 46 and a plurality of interior columns 47*. Stewart shows columns in Figures 2-5 and 7-23 and teaches no advances in the state of the art of building construction. Significantly, when Stewart wishes to create a space that is larger than a tunnel width, he supplies the necessary support by using conventional columns.

Clearly, Stewart does not teach or suggest constructing a garage using tunnel-forming techniques *and* constructing the tunnels such that the number of spaces is not constrained by the number of tunnels, *i.e.* by including some tunnel walls that span both the drive aisle and the length of a parking space.

As set out in the previous Response, while Applicants agree that Stewart teaches parking spaces 508, 510 and a drive aisle 512, Stewart *does not teach or suggest extending the drive aisle opening* in any manner. Put another way, according to Stewart, the drive aisle openings in each wall are the same width and none are wide enough to span a parking space. There is no point in Stewart's garage where a portion of a wall between two parking spaces has been removed such that a car could park "under" (in line with) the tunnel-formed wall. Applicants emphasize that the present claims relate to openings in (through) the walls, and not to the spaces between walls. The creation of an extended opening in selected tunnel-formed walls, combined with the other recited features that make such an opening possible, is at the heart of applicants' claims.

Likewise, Cerutti relates to techniques for opposing buoyancy in tunnel forms and has nothing to do with the construction of operable parking garages. Nothing in Cerutti teaches the claim elements that are missing from Stewart.

Discussion of Functional Limitations

Most of the present amendments relate to the insertion of the word “automobile” in front of the phrase “parking space,” so as to make clear that the parking spaces are constructed so as to receive automobiles. This functional limitation does not constitute new subject matter, inasmuch as the specification as filed relates to “parking garages” and “cars,” which the ordinary reader would understand refers to garages for the parking of automobiles.

In addition, the present claims include a second functional limitation, namely the recitation that the drive aisle openings in said first tunnel walls be “*wide enough to accommodate an automobile parking space in addition to said drive aisle.*”

Applicant respectfully submits that these functional limitations are both proper and definite. First, functional limitations are acceptable under U.S. patent practice. MPEP 2173.05(g) provides that:

“A functional limitation is an attempt to define something by what it does, rather than by what it is (e.g., as evidenced by its specific structure or specific ingredients). There is nothing inherently wrong with defining some part of an invention in functional terms. Functional language does not, in and of itself, render a claim improper. *In re Swinehart*, 439 F.2d 210, 169 USPQ 226 (CCPA 1971).”

Second, Applicant submits that the amount of space (*i.e.* width of opening in a tunnel wall) needed to “accommodate an automobile parking space in addition to said drive aisle” would be definite and well known to one skilled in the art of parking garages. In support of this assertion, Applicant has attached as Exhibit A four highlighted printouts readily obtained from the Internet, showing that the dimensions of an automobile parking space (both depth and width) are clearly defined and well known, and in fact are often prescribed by ordinance or the like. The same is true for drive aisle width.

Thus, one of ordinary skill in constructing parking garages would understand and be able to construct a garage meeting the limitations of the present claims. Specifically, the limitation relating to the width drive aisle openings can be met by providing drive aisle openings that are at least as wide as the sum of the prescribed parking space depth for the garage and the intended drive aisle width.

The art does not teach the use of tunnel walls with openings that span the drive aisle and a parking space. Because the claims as written are definite and clearly distinguishable over the art, Applicant respectfully submits that they are in condition for allowance.

Restatement of the Invention

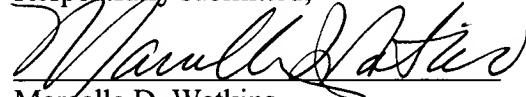
Applicants have invented a method for forming a parking substructure that uses a tunnel-forming technique that does not require supplemental columns and yet allows for a more efficient spacing of automobiles within the parking structure than would be possible using conventional tunnel-building techniques. This is a breakthrough in the state of the art because the standard desired width of tunnels for living quarters is not an efficient width for parking spaces. As described in the original specification, the disparity between the desired wall spacings in the substructure and superstructure formerly could only be overcome by inclusion of an expensive "transfer deck" between the substructure and superstructure. The present invention advances the art, therefore, by making possible a desirable spacing in both the substructure and superstructure without necessitating a transfer deck. Nothing in the art of record teaches or suggests the claimed invention.

Conclusion

Applicants sincerely appreciate the effort the Examiner has invested in the present case.

For all of the reasons set out above, applicants submit that claims 15 and 20, as well as the claims that depend from them, are allowable over the art of record. Applicants therefore request that the Examiner enter the amendments and withdraw the rejections. If the Examiner has any questions or comments, or would like to suggest any further amendments, he is encouraged to telephone the undersigned at (713) 238-8043.

Respectfully submitted,



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